The All American Egg Drop Competition

PURPOSE:

The purpose of this activity is to develop a container, which will protect an egg from breaking resulting from the impact of a fall.

MATERIALS:

One healthy egg, five sheets of typing paper and one meter of masking tape.

PROCEDURE:

You are to construct a device that will allow a raw egg to fall on a hard surface such as a floor or sidewalk without cracking or breaking. You will have 5 sheets of paper to construct your container and one meter of masking tape.

The device must be constructed so that the egg can be removed easily to determine whether or not it has sustained any damage.

Each egg will be dropped from a height of 1 meter. If the egg withstands this fall then it will be eligible for the 2 meter fall. Those surviving will then be dropped from three meters and so on. The egg that survives the highest fall will be declared the winner and the group members who engineered its protection will each be awarded a 10 bonus points and doughnuts.

Also weigh your container and egg and time it takes to fall for each height. For each height then determine the force that your egg height the ground with.

RULES:

1. You may have only one egg.
2. You must use the paper and tape to protect the egg in some way.
3. Only materials provided may be used.
4. Containers should be designed so that the egg can be easily inserted before competing and easily checked after the drop.
5. NO PARACHUTES of any kind

SUMMING UP:

You are currently studying a unit on impulse and momentum that involves the concepts needed to SAVE THE EGG. You must write a paragraph, that will be turned in, describing what your device is trying to accomplish in **terms of the physics** of the problem and **WHY** you built it the way you did. This will be read to the group before your launch! You will write **a second paragraph** writing what you learned about your design and the improvements you would make in a new version.

Physics: Egg Drop Lab

Names_____

_____ Presentation and reading to class: 10 points

_____ 1st Paragraph: Why they choose their design: 10 points

_____ 1st Paragraph: Described construction in terms of Physics: 10 points

_____ 2nd Paragraph: Improvements and lesson learned 10 points

_____ Height reached: 5 points 1 meter, 10 points 2 meters. 1 point extra credit for each additional meter

_____ Total points: 50 points possible